



Harambee Youth Employment Accelerator is a not-for-profit social enterprise building African solutions for the global challenge of youth unemployment. We work in South Africa and Rwanda with many partners who are committed to results that can work at scale – including government, the private sector, civil society, and almost 3.4 million youth.

Harambee is an anchor partner in a breakthrough platform called SA Youth. It is part of the Presidential Youth Employment Intervention – a coordinated strategic national plan, announced by President Ramaphosa in his 2020 SONA, that sets out priority actions to address the youth unemployment challenge in South Africa by creating opportunities for young people at scale.

SA Youth brings together many partners to create a single national network to allow young people to access a wide selection of earning and learning opportunities, and for opportunity holders to access young engaged work-seekers – for free!

Our staff complement of over 400 motivated people continues to work both on-site and remotely in a fluid and vibrant environment to tackle the challenges of a country where over 50% of young people are unemployed.

Winner of the 2019 Skoll Award and 2019 Conscious Companies Award.

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# JOB OPPORTUNITY SPECIFICATIONS

## POSITION

Senior Data Engineer

## REPORTS TO

Head: Data

## LOCATION

Gauteng

## About the role

The Harambee Software Development team is looking for an exceptional Senior **Data Engineer** to join their dynamic team based in Johannesburg. The Senior Data Engineering role's objective is collecting, storing and processing large sets of data, with the primary goal of providing optimal solutions to use and of course the implementation, improvement, and monitoring thereof. The Senior Data Engineer is also responsible to **partner with the Head of Data on database design and strategy** to enable Harambee's future strategy and technology roadmap. Furthermore, the **Senior Data Engineer** will be doing all that in an organisation that changes lives and has a culture of teamwork, openness and collaboration. If this prospect excites you, then you may be the person we are looking for.

## THE TECHNICAL CHALLENGE

Harambee is building a ground-breaking, scalable, future-fit technology platform that changes lives by helping young first-time work-seekers find jobs and work experiences. Our technology needs to cater for the unique, personalised employment journey of each workseeker – ultimately using the power of big data to help them find their first job. We run an Agile Development Programme in a DevOps infrastructure and culture. Our cloud-native technology stack is predominantly hosted in Google Cloud Platform with services written in .Net Core and Python. The data landscape includes MYSQL, Big Query and Composer. This technology stack is currently being revised to drive a strategy of simplification, business user enablement and data integrity. Google did a case study on us. READ IT (<https://cloud.google.com/customers/harambee/>)

## ROLE RESPONSIBILITIES

You will work as a technical specialist, aiding your colleagues in the creation, maintenance and use of the data stack.

1. Planning and strategy:
  - a. Engage with various stakeholders to understand the business and data goals in context of Harambee's strategy and vision
  - b. Design data solutions for real-time and batch environments
  - c. Document the planning, implementation and operation of the data platform
  - d. Select and integrate any big data tools and frameworks required to enable the business and data analysis goals
  - e. Work closely with the data analyst, testers, developers and business analysts to design and ensure delivery of data requirements
2. Execution:
  - a. Assist with and advise on the data platform and it's use, including data analysis, security, architecture and modelling
  - b. Ensure effective infrastructure for processing large volumes of transactional data
  - c. Implement data retention policies
  - d. Monitor performance and advise on necessary infrastructure changes
  - e. Work with platform developers to ensure seamless and optimal data ingestion
  - f. Build data structures and pipelines that ensure the storage and transformation of data
  - g. Work with the data analysts to ensure necessary and accurate data is available for downstream use
3. Support
  - a. Support other teams with ad hoc data analysis to derive business insights
  - b. Support the Data analysis and Business Intelligence team on data validation and quality assurance to ensure accurate dashboards and reports

## ROLE REQUIREMENTS

### Experience

- Matric / Grade 12
- A degree or diploma in Science or Engineering (Mathematics, Statistics, Computer Science or related field)
- Minimum 8 - 12 years' experience as a data engineer
- Knowledge of and use with data tools and languages



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- Exceptional data skills
  - SQL proficiency
  - Document stores
  - Realtime and batch processing
  - Models and relationships
- Large scale ETL (Apache beam or Apache spark, SSIS)
- Cloud experience (Google Cloud Platform, Azure, or AWS)
- Python
- MySQL
- R (nice to have)
- Has worked at a company of similar size and complexity to Harambee over the past 24 months
- Importantly, you must fit with the Harambee culture, be passionate about our mission and be an individual who leaves things better than you found them.
- Keen to work for purpose and be inspired by the bigger social problem we want to solve Keen to learn and grow

## COMPETENCIES

- Curiosity and drive to understand, improve and deliver
- Proven track record of quality delivery
- Comfortable explaining data models, data structures and analytical findings to technical and non-technical audiences
- Willingness to learn
- A passion for knowledge sharing and upskilling other team members
- Highly detail oriented

**Closing date** for applications is 21 February 2024

Apply for this position by sending your CV to [recruitment@harambee.co.za](mailto:recruitment@harambee.co.za), including the position you are applying for in the subject line.

By applying for this vacancy, you give consent to your CV to be reviewed for other roles and allow for your cv to be shared with the relevant persons at Harambee.